



**ABLE HUMBER PORTS FACILITY, KILLINGHOLME:**

**Winter Farmland Bird Survey**

**Strictly Confidential**

Report to Able UK Ltd

by

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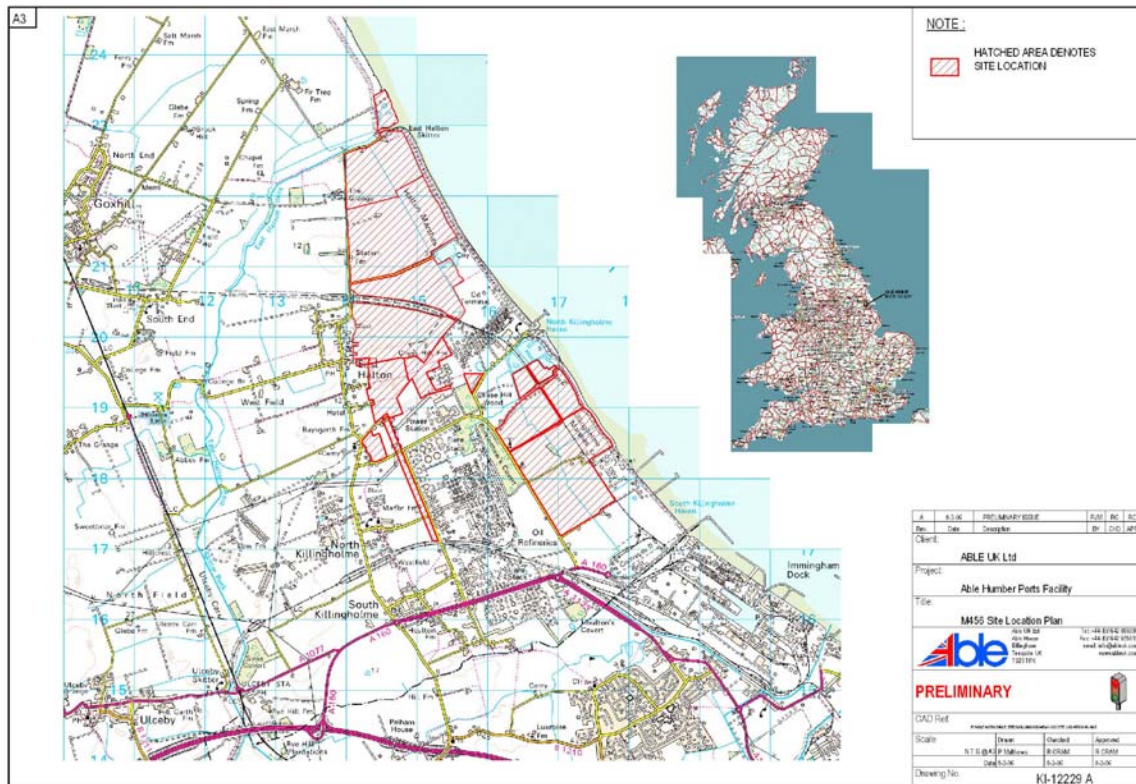
## 1. Executive Summary

- 1.1 A wintering farmland bird survey was undertaken across an 800ha study site at Killingholme on the Humber Estuary. A standard methodology was used, with visits taking place during September 2006 to February 2007.
- 1.2 A total of 38 bird species was recorded within the core of the study area, and a further six species were found in the buffer zone around the site. These birds included some priority conservation species.
- 1.3 No major roost sites (sites with more than 100 individuals present) were found throughout the study. Of interest for roosting birds was a small area (1 hectare) of scrub adjacent to the Conoco entrance to the site. This held over thirty roosting thrushes during mid-winter.
- 1.4 Two 'hot spot' areas for winter farmland birds are identified: East Halton Grange and Red House Farm, both in the buffer zone, but immediately adjacent to the application site boundary.
- 1.5 For species with priority conservation status, detailed accounts are provided to describe their distribution in the study area.

## 2. Introduction

- 2.1 JUST ECOLOGY has been commissioned by Able UK Limited to carry out ecological surveys and assessments that will inform the preparation of an Environmental Statement for a proposed ports facility at Killingholme, Humber Estuary, North Lincolnshire. The application site is shown in Figure 2.1.
- 2.2 Important ecological receptors have been identified on the basis of desk research and Extended Phase 1 field survey (Kirby *et al.* 2006), including the presence of a diversity of birds in the non-breeding season, including Red- and Amber-listed Birds of Conservation Concern in the UK (Gregory *et al.* 2002). Winter farmland bird survey was therefore recommended.
- 2.3 Here we present the results of a winter farmland bird survey over the application site.

Figure 2.1: Site location (courtesy of Able UK)



### 3. Methods

#### 3.1 Background

- 3.1.1 During the non-breeding season for winter farmland birds (October to March) many birds still remain approximately within their summer breeding ranges and, in some species, their numbers are supplemented by the arrival of continental birds. These migrants arrive in Britain in late autumn and stay until the Spring. With leaves fallen from the trees, the birds are more conspicuous in winter; they also call and sing periodically and can be observed from some distance away.
- 3.1.2 Birds positions and numbers can be mapped onto field sheets and their numbers and distributions can be assessed.
- 3.1.3 For the study site at Killingholme, a transect route through typical farmland habitat was adopted (Annex 1), to assess the presence or absence of bird species during the winter months and to obtain approximate measures for relative abundance.

### **3.2 Field methods**

- 3.2.1 The recording method involved laying out a route through the study area. The route was designed so that the surveyor would walk through a good representative sample of farmland habitats and, as far as practicable, into all parts of the site. The transect was devised so that it could still be covered in the short day length of mid-winter.
- 3.2.2 The surveyor, whilst walking the route, recorded all the birds that were seen or heard, recording their locations onto a large scale map using a standard BTO code, and a standard set of activity symbols. The surveyor was looking for any activity that showed that the birds were using the area for feeding or roosting. All bird species were included, including waders or wildfowl that are more closely associated with the estuary. Any roosts of birds found were recorded.
- 3.2.3 Visits commenced in September 2006 and continued with one visit per month until February 2007. Weather conditions were either good or reasonable (strong winds in November and December) for all visits.

## **4. Results**

### **4.1 Overview**

- 4.1.1 A total of 38 bird species were recorded as present within the study area during the non-breeding season of 2006-07 (September-February). In general they are a good representative suite of farmland bird species. Some are common, but others less so (e.g. Peregrine, Barn Owl, Grey Partridge and Twite) and some are afforded a special conservation status (e.g. Red-listed Birds of Conservation Concern) and presented in detail later in this report.
- 4.1.2 In general, Table 4.1 illustrates the dispersed distribution of each species throughout the sectioned areas of the application site. Area 2a held the most species and Area 5 nearly as many.
- 4.1.3 The largest numbers of birds were recorded in Area 2a in all months; Area 5 supporting the second most (Table 4.2).
- 4.1.4 Total counts per species (all sections combined) are shown in Table 4.3, with over 500 birds recorded on the transect in September, December and January. These included species such as Lapwing (details see Coastal Bird Report), Dunnock, Robin, Blackbird, Redwing,

Fieldfare, Blue tit, Great tit, Starling, House Sparrow, Chaffinch, Greenfinch, Goldfinch, Linnet, Yellowhammer and Reed Bunting – all occurring in reasonable numbers.

4.1.5 Month by month counts per section are presented in Annex 2.

**Table 4.1:** 38 species found during the survey that were using the fields and boundaries for feeding or roosting. Carrion Crow, Woodpigeon, Pheasant and partridge and all gulls are omitted. Red- and Amber-listed Birds of Conservation Concern are identified as such.

Species/Area	2a	2b	2c	3	4	5	Buffer
Cormorant							present
Mallard	present	present					present
Tufted Duck							present
Kestrel	present	present				present	present
Sparrowhawk	present						present
Peregrine	present						present
Grey Partridge	present		present				
Moorhen	present	present					present
Coot							present
Oystercatcher							present
Shelduck							present
Ruddy Duck							present
Lapwing	present					present	present
Stock Dove	present					present	present
Barn Owl	present						present
Tawny Owl		present					
Skylark	present					present	present
Meadow Pipit	present					present	present
Pied Wagtail	present					present	present
Grey Wagtail	present						
Wren	present	present	present	present	present	present	present
Dunnock	present	present	present	present	present	present	present
Robin	present	present	present	present	present	present	present
Blackbird	present	present	present	present	present	present	present
Song Thrush	present					present	present
Mistle Thrush	present	present				present	present
Redwing	present					present	present
Fieldfare	present					present	present
Coal Tit	present			present			
Blue Tit	present	present		present	present	present	present
Great Tit	present	present		present	present	present	present
Long-tailed Tit	present						
Goldcrest							present
Jackdaw	present	present			present	present	present
Starling	present	present		present	present	present	present
House Sparrow	present	present			present	present	present
Chaffinch	present	present	present		present	present	present
Brambling	present						
Greenfinch	present				present	present	present

Species/Area	2a	2b	2c	3	4	5	Buffer
Goldfinch	present				present	present	present
Linnet	present					present	present
Bullfinch				present			
Twite	present						
Yellowhammer	present					present	present
Reed Bunting	present					present	present

**Table 4.2: Month by month total bird counts per sector**

Month/Area	2a	2b	2c	3	4	5
September	410	15	6	4	11	77
October	276	35	4	5	8	117
November	183	15	1	11	6	103
December	569	11	2	8	4	113
January	488	30	4	11	31	92
<b>TOTALS</b>	<b>1926</b>	<b>106</b>	<b>17</b>	<b>42</b>	<b>64</b>	<b>507</b>
<b>Density</b>						

**Table 4.3: Total numbers of each species recorded per month in 2006/07 (all sectors combined). Red- and Amber-listed Birds of Conservation Concern are identified as such.**

Species/Month	Sep	Oct	Nov	Dec	Jan
Mallard	22	6	4	4	4
Tufted Duck	0	0	0	0	0
Kestrel	2	2	1	1	1
Sparrowhawk	1	1	0	1	1
Peregrine	0	0	0	1	0
Grey Partridge	0	7	0	4	0
Moorhen	5	1	2	2	6
Coot	1	1	0	0	0
Oystercatcher	2	0	0	2	0
Shelduck	2	4	0	2	4
Lapwing	0	58	9	0	8
Curlew	0	0	2	0	0
Stock Dove	3	2	2	0	0
Barn Owl	1	0	1	0	0
Tawny Owl	0	0	0	1	1
Skylark	3	5	0	3	10
Meadow Pipit	5	12	9	5	11
Pied Wagtail	9	10	7	9	5
Grey Wagtail	0	1	0	0	0
Wren	13	4	6	8	11
Duncock	29	16	22	29	28



Species/Month	Sep	Oct	Nov	Dec	Jan
Robin	32	15	19	21	16
Blackbird	47	40	25	77	71
Song Thrush	3	2	3	15	9
Mistle Thrush	2	2	1	4	3
Redwing	0	19	0	30	27
Fieldfare	0	0	2	50	32
Coal Tit	3	1	0	2	3
Blue Tit	37	20	8	24	28
Great Tit	47	0	13	32	39
Long-tailed Tit	8	0	5	6	6
Goldcrest	1	0	1	2	2
Jackdaw	6	10	3	9	0
Starling	71	31	18	233	200
House Sparrow	52	11	45	55	23
Chaffinch	41	16	28	16	51
Brambling	0	6	6	2	0
Greenfinch	10	47	0	6	10
Goldfinch	32	20	10	12	20
Linnet	18	24	35	4	17
Bullfinch	0	1	0	1	0
Twite	0	0	8	8	0
Yellowhammer	9	8	11	9	4
Reed Bunting	6	10	10	17	5
<b>TOTALS</b>	<b>523</b>	<b>413</b>	<b>316</b>	<b>707</b>	<b>656</b>

4.1.3 A description of each individual section within the application area and its importance for wintering farmland birds is now presented.

#### Area 2a

This sector is comprised of all farmland bounded by the East Halton/Skitter Beck road to the west; the Humber estuary to the east; the Skitter Beck to the north and industrial structures to the south. Most of the fields were in autumn-sown cereals during the survey period; and many others had cover crop of brassica, or were ploughed or fallow.

Birds recorded using the fields for feeding included: Curlew, Lapwing, Meadow Pipit and Skylark. The largest flock of Skylark recorded was 17 in January 2007. Barn Owls also quarter these fields, as do Kestrel, Sparrowhawk and Peregrine Falcon. No field roosts were recorded.

Many fields have hedges as boundaries and these hold foraging flocks of thrushes, finches and tits. The hedges that border the East Halton/Skitter Beck road are the richest with, for example, Blackbirds present every 100 metres. Of note is the hedge that borders the Skitter beck and marks the northern edge of the application site; this held good numbers thrushes including Fieldfares, Blackbird and Song Thrush.

The 'hedge' that marks the disused railway line also held good numbers of thrushes and finches.

The small fields and hedges that are in the lower west corner of this sector were also good for Mistle Thrush and Fieldfare, whilst the permanent grazed grassland held Redwing and Starling feeding.

#### **Area 2b**

This is a small area against the northern boundary of North Killingholme parish, bordered on two sides by roads, and consisting of grazed grassland, a pond and a small copse.

A good selection of farmland birds were recorded here, as well as waterbirds that use the pond. No field roosts were recorded.

Tawny Owls were heard on several occasions which probably indicates they use this area for hunting. A pair was recorded from here during the breeding survey of 2006 (West & Kirby 2006).

#### **Area 2c**

This is a small triangle of land now out of agriculture and overgrown with weed species.

Several finch species were recorded feeding off the weed seeds in this area, including Goldfinch. Other birds like Robin and Wren are present on the western boundary where woodland abuts the site. No field roosts were recorded.

#### **Area 3**

This area comprises of a long thin strip of land that borders the western side of a road, and is mostly arable.

Few birds are present along the area that borders the road. The hedge at the northern end (adjacent to young woodland planting) is richer, with Song Thrush and Bullfinch present. No field roosts were recorded.

#### **Area 4**

This area is mostly hard standing and a suboptimal habitat for wildlife. Most records come from the western boundary hedgerow that runs by the side of the Conoco pipeline. No roosts were recorded.

#### **Area 5**

This area is mostly farmland, with a mixture of arable and permanent grassland. Curlew, Lapwing (see Coastal Bird Survey Report for details), Skylark and Meadow Pipit were recorded using these fields, Meadow Pipits clearly preferring the planted ley meadows. No field roosts were recorded.

Many of the hedgerows in this sector are 'gappy' but still hold some thrushes and tits. Linnets use this area. The hedge that borders Marsh

Lane is the richest in this sector with finches and tits abundant. House Sparrow flocks were present around the derelict farm buildings at TA173183.

### **'Hotspots'**

Two hotspots for winter farmland birds were recorded, both on the East Halton to Skitter Beck road. Both are a group of farm buildings with their associated small copses. Both are in the buffer zone, which is an area which surrounds the entire study site to a depth of 500 metres and birds are also recorded from this area. For the two areas discussed here the East Halton Lane is the boundary between the study area 2a and the buffer zone, see also Appendix 1.

#### *East Halton Grange*

The farm buildings and the attendant farming operations attract flocks of 50 plus House Sparrows. Yellowhammers, Chaffinches and Reed Buntings also use this area in small groups. The mature woodland copse adjacent holds Goldcrest, Coal Tit and Mistle Thrush. Overall, approximately 10% of the birds recorded in Area 2a are recorded here.

#### *Red House Farm*

This farm has more modern farm buildings which might be the reason for the smaller numbers of birds (around 5% of the Area 2a total) compared to East Halton Grange. Yellowhammers, Chaffinches and Reed Buntings also use this area in small groups (eight Yellowhammers was the largest flock recorded). The mature woodland copse adjacent holds Goldcrest, Coal Tit and Mistle Thrush.

## **4.2 Key species**

- 4.2.1 Certain bird species have been afforded a high conservation status in the UK, usually because of their threatened or declining status.
- 4.2.2 Birds of Conservation Concern (BoCC) in the UK have been listed under a partnership of Governmental and non-governmental organisations. Every five years the listings are reviewed for the 247 species included, with species categorised as – red, amber or green. Forty species are currently on the red-listed or most threatened category. Of those forty, ten species (25%) were recorded in the study area during the non-breeding season.
- 4.2.3 Also important are species flagged as a priority under the UK Biodiversity Action Plan. This Plan combines new and existing conservation initiatives with an emphasis on a partnership approach. It contains 59 objectives for conserving and enhancing species and habitats as well as promoting public awareness and contributing to international conservation efforts. Also included are 391 Species Action

Plans (SAPs) and 45 Habitat Action Plans (HAPs) for the UK's most threatened (i.e. "priority") species and habitats. These plans describe the status of each habitat and species, outline the threats they face, set targets and objectives for their management, and propose actions necessary to achieve recovery.

4.2.4 In addition there are approximately 150 Local Biodiversity Action Plans, including one for Lincolnshire and Humberside, and these define species of local importance, i.e. Local BAP species.

4.2.5 The key species discussed below are the species found outside of the breeding period on the study site that have priority status under one or more of the provisions mentioned above.

### **Grey partridge** *Perdix perdix*

*UK BAP species; Lincolnshire Local BAP species; BoCC Red List species*

This species was formerly common and widespread throughout Britain and Ireland but is now retreating east and becoming scarce wherever no special conservation measures are in place. Grey partridge nest in the rough grassland of field margins, road verges, and within certain crops. Adult birds feed on grain, seed and green leaves. Coveys of two to five adults and their young form in winter and remain together until the following spring.

#### *Lincolnshire distribution*

Breeding distribution is patchy but the highest numbers are found in central and north Lincolnshire, with particular concentrations in the Clay Vales, (Upper Witham Fens) and the Lincolnshire limestone around and north of Lincoln. Lower numbers are found on the Wolds and Middle Marsh. Other than along the main drains and major rivers, breeding birds are scarce in Fenland and over much of the limestone south of Sleaford, but there are concentrations along the county boundary in the south-west and in the Bourne-Deepings area.

Wintering distribution is similar, but even more closely concentrated in mid-Lincolnshire. No reports of more than 20 birds were received from anywhere in the southern Fens or from most of the limestone, the Trent and Witham Vales, the Marsh or the Ancholme Valley. Records of 20-50 birds came from only the Witham Fens, southern Wolds, the Wragby clays, the limestone immediately north and south of Lincoln and the Isle of Axholme. The population in 1989 was estimated from Lincolnshire Bird Atlas and Common Bird Census (CBC) data at about 7,000 pairs, but there is no information on any changes since then.

### *Study site*

Recorded from Area 2a, a small covey was observed in October and November 2006, in the same general area as breeding pairs were observed in the Spring of 2006 (West & Kirby 2006). A pair of birds was recorded from Area 2c in February and another pair in a ploughed field in Area 2a, also in February.

### **Barn Owl** *Tyto alba*

*BoCC Amber List species; Wildlife & Countryside Act 1981, Schedule 1 species*

The Barn Owl has experienced a decline in its population in England and Wales of an average of 69% between 1932 and 1985. The county of Cheshire showed a decline of 85%. The most recent estimate of the national population is 3750 pairs in England and Wales with a further 650 pairs in Scotland.

### *Study site*

Observed hunting over fields at the northern end of the Halton Marshes. A single bird was observed on each visit in September, October and November 2006, hunting over the saltmarsh to the north of the Skitter Beck then moving south over the Beck and onto the Halton Marshes. It would then move along a hedgerow inland towards the East Halton Road and East Halton Grange.

### **Skylark** *Alauda arvensis*

*UKBAP species; Lincolnshire Local BAP species; BoCC Red List species*

Resident in Lincolnshire all year, with numbers boosted outside the breeding season by passage migrants and winter visitors from north-east Europe. Breeding skylarks prefer mixed farms or at least those with a diversity of crops, which provide a series of nest-sites and food sources through the seasons. Spring-sown cereals (now infrequent in the county), mown grassland and set-aside are the preferred breeding areas. Wintering skylark form flocks on farmland and coastal marshes, feeding on seed or grain where this is available but otherwise grazing crop seedlings.

### *Lincolnshire distribution*

Breeding skylarks were recorded in almost every tetrad throughout Lincolnshire but were highly concentrated on the coastal marshes from the Humber round to the Wash, in Fenland, and along the major rivers including the Trent, Ancholme and upper Witham. Wintering distribution is similar with

flocks of 1000+ birds found mainly along the coast and in a broad band across south Lincolnshire from Boston to Stamford.

#### *Study site*

Evenly-spread throughout the arable areas of the study area, recorded in Areas 2a, 4 and 5. They appear to be in most crop types throughout the study area.

### **Song Thrush** *Turdus philomelos*

*UKBAP species; BoCC Red List species*

A resident, partial and passage migrant and winter visitor. Nationally song thrushes are still common and widespread, absent only from the highest mountains but with greatest density in south-east England and lowland Ireland. Many native birds move south and west in winter and are replaced by continental birds from Belgium and The Netherlands. Birds from Scandinavia and northern Europe also pass through Britain in autumn to winter in France and Iberia. Following the winter of 1962-63 the population declined but recovered to a stable level within three-four years. Numbers nationally subsequently remained stable until the mid-1970s after which they declined steadily.

#### *Lincolnshire distribution*

The Lincolnshire Atlas survey found song thrushes breeding throughout the county, occurring in almost every tetrad on the Wolds and in the Marsh and Fens. Distribution was patchier in the Trent Valley, on the limestone both north and south of Lincoln and down the western Fen edge. Wintering birds were concentrated close to the coast and in the south-west of the county, perhaps reflecting migrant distribution

#### *Study site*

A species locally abundant and recorded in Areas 2a and 5. They appear to favour areas with mature trees and where this if a habitat present, Song Thrushes are found throughout the study area.

### **Linnet** *Carduelis cannabina*

*UKBAP species; Lincolnshire Local BAP species; BoCC Red List species*

A resident and partial migrant in Lincolnshire. Some breeding birds may move south to France, Spain and Portugal in winter, and at the same time a small number may arrive from Scandinavia. The adults eat mainly weed

seeds, though oil-seed rape is also favoured. In winter linnets join flocks of other finches and buntings, once common but now scarce on farmland, and roost in thick shrubs.

#### *Lincolnshire distribution*

Linnets were found breeding over most of the county with particular concentrations in the north-east, especially in the northern half of the Marshes and on the coast south to Mablethorpe, and in all the main river valleys, particularly the Welland-Glen system. Winter flocks showed a similar distribution but were also more widespread throughout the Fens, along the coast to the Wash, and the limestone plateau just south of Lincoln.

#### *Study site*

Recorded using both arable fields and permanent grassland. Flocks generally comprised around 8-10 individuals.

#### **Twite** *Carduelis flavirostris*

#### *BoCC Red List species*

Twite's breed commonly in northern and western Scotland and more commonly in northern England. A generally scarce breeding bird in Britain, they are perhaps easier to find in winter when they occur in flocks around the coast on both sides of the North Sea. In Britain the best wintering sites include Saltfleetby in north Lincolnshire, Druridge Bay in Northumberland, the North Norfolk Coast (particularly Titchwell and Holkham Gap), the Naze in Essex and Flint Castle in Clwyd.

Wintering flocks can get up to a 1,000 birds and can occur on saltmarsh, fields of turnips, rape or other stubbles and roosting in reedbeds or brambles.

#### *Study site*

A small group of eight birds were recorded first in November 2006 where they flew from the saltmarsh just north of the East Halton Skitter south to the borrowdyke behind the concrete river wall on the East Halton marshes. These birds were recorded again in December from the same borrowdyke, but further south near the derelict brick kiln site.

**Bullfinch** *Pyrrhula pyrrhula*

*UKBAP species; Lincolnshire Local BAP species; BoCC Red List species*

Resident all year in Lincolnshire with rare influxes of continental birds. The breeding habitat is typically woodland, although untrimmed hedges, and scrub on farmland are also used. In late summer and autumn seeds of birch, nettle, dock and meadowsweet are collected, while ash seeds form the staple food in a good winter. In early spring, if the ash is finished, fruit buds are eaten.

*Lincolnshire distribution*

Bullfinch breeding distribution in Lincolnshire is closely linked to the distribution of woodland, including the Kesteven Woods, Bardney Forest, Willingham Forest, Skellingthorpe-Doddington Woods, Twigmoor Woods, Broughton Woods and woodland along the Fen edges and eastern side of the Wolds. Elsewhere smaller concentrations occur but distribution is patchy and breeding bullfinches are absent from most of the Fens and Marsh and much of the Lincolnshire limestone, Trent Valley, Ancholme valley and the northern half of the Isle of Axholme. Since the birds are resident winter distribution is similar. Family parties are also more conspicuous in winter, when they may move out of woodland along adjoining hedges. Bullfinches are not birds of deep woodland however, being associated with wood and ride edges, particularly where there is good cover of medium-tall blackthorn. They will also use this habitat away from woodland, in parks, large gardens and good dense patches of farmland scrub.

*Study site*

A secretive species, and only recorded from the northern section of Area 3 in the hedgerow that borders with the power station.

**Yellowhammer** *Emberiza citronella*

*BoCC Red List species*

Widespread and common throughout much of Europe, the yellowhammer is a resident species in the UK, and has a more restricted distribution in Scotland than the rest of the British Isles. Some of the Scandinavian population migrates in small numbers to the British Isles during winter.

Yellowhammer abundance began to decline on farmland in the mid 1980s and the decline has continued ever since. The species, now qualifies for the Red List. While there is some evidence that survival rates have decreased during the period of decline, Reductions in winter seed food availability as a result of agricultural intensification (for example, the loss of winter stubbles and a



reduction in weed densities) are widely believed to have contributed to the population decline.

*Study site*

Recorded from Areas 2a and 5 where they occupied mature hedges. Also present at the two hotspots of East Halton Grange and Red House Farm. Some birds were beginning to move back onto the breeding territories by February.

**Reed Bunting** *Emberiza schoeniclus*

*UKBAP species; Lincolnshire Local BAP species; BoCC Red List species*

Resident in Lincolnshire all year although some breeding birds may move south and some wintering birds may arrive from north-west Europe and Scandinavia, especially along the coast. Most breeding birds are found near water with the preferred habitats being reedbeds and marshy birch/willow/alder scrub on the margins of rivers, drains, ponds and gravel pits. Drier habitats, including farmland hedges, may also be used when the preferred habitat is not available. The adults eat seeds and grain, especially in winter. Wintering birds feed in mixed species flocks and roost in reedbeds or wetland scrub.

*Lincolnshire distribution*

Breeding birds were largely absent from the Wolds and the limestone plateau, all the Coversands and much of the Fens except where these areas are crossed by river valleys. The densest populations are found all the way along the coast, from the Humber to the Wash, in the Marsh, Ancholme Valley, Isle of Axholme and abroad band across South Lincolnshire from Boston to Stamford. Winter distribution was similar, again highlighting the coast and river valleys.

*Study site*

Recorded from Areas 2a and 5, and also the two hotspots. Found in hedges adjacent to the Humber estuary but also on the higher ground around the farmsteads. Some birds were back on their breeding territories by February.

## **Starling** *Sturnus vulgaris*

### *BoCC Red List species*

Noisy and gregarious, starlings spend a lot of the year in flocks. Still one of the commonest of garden birds, its decline elsewhere makes it a Red List species.

It spends the winter in a wide range of habitats, from arable fields to pasture, in gardens and parks, and on the seashore. Large feeding flocks collect into even larger roosting flocks in plantations and reedbeds, and on cliffs and buildings.

Conspicuous and widespread in the UK, occurring everywhere except for the highest parts of the Scottish Highlands. They are most abundant in southern England and are more thinly distributed in upland areas with moorland. Still the UK's commonest garden bird with huge roosts found in plantations, reed beds and city centres.

### *Study site*

Foraging flocks recorded from most areas that had permanent grasslands. Flocks over 200 individuals were recorded.

## **House Sparrow** *Passer domesticus*

### *BoCC Red List species*

Noisy and gregarious, these cheerful exploiters of man's rubbish and wastefulness, have even managed to colonise most of the world. The ultimate opportunist perhaps, but now struggling to survive in the UK along with many other once common birds. They are clearly declining in both gardens and the wider countryside and their recent declines have earned them a place on the Red List.

Found from the centre of cities to the farmland of the countryside, it feeds and breeds near to people. Vanishing from the centre of many cities, but not uncommon in most towns and villages

### *Study site*

Found around the two hot spots, and other chosen sites in Areas 2a, 2b, 4 and 5. A large flock of 44 was recorded by East Halton Grange in February.

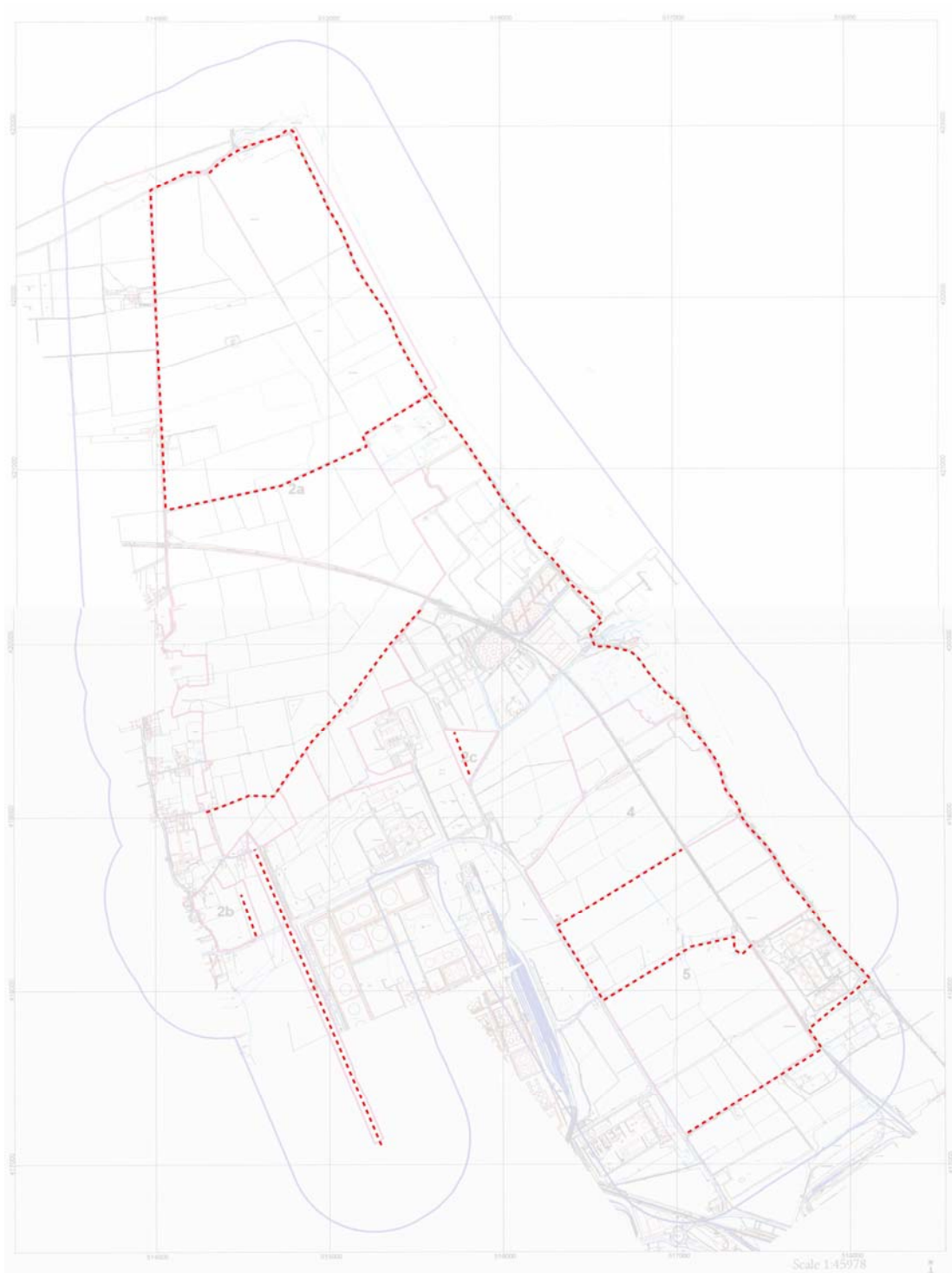
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## 6. Appendices

### ***Annex 1. Transect used for winter farmland bird survey***

The area marked with a blue line is the 500m buffer zone adopted for our surveys, within which all birds are recorded.



**Annex 2. Month by month species totals for each sector**

MONTH - FEBRUARY 2007							TOTAL
Species	Area						
	2A	2B	2C	3	4	5	
Mallard							
Tufted Duck							
Kestrel	1					1	2
Sparrowhawk							
Peregrine Falcon							
Grey Partridge	2		2				4
Moorhen	2						
Coot							
Oystercatcher							
Shelduck							
Lapwing							
Stock Dove	3						3
Barn Owl							
Tawny Owl							
Skylark	9					4	13
Meadow Pipit							
Pied Wagtail						1	1
Grey Wagtail	2						1
Wren	5			1			6
Dunnock	9					3	12
Robin	8			1		4	13
Blackbird	10	2				8	20
Song Thrush	2	1				1	4
Mistle Thrush		1					1
Redwing							
Fieldfare							
Coal Tit							
Blue Tit	10	1	2	2	1		16
Great Tit	18	1	1	1			21
Long-tailed Tit			11				11
Goldcrest							
Jackdaw	2						2
Starling							
House Sparrow	44						44
Chaffinch	12	1					13
Brambling							
Greenfinch	4						4
Goldfinch						21	21
Linnet							
Bullfinch							
Twite							
Yellowhammer	1			1			1
Reed Bunting	1				1	1	1
<b>TOTALS</b>	<b>145</b>	<b>7</b>	<b>16</b>	<b>9</b>	<b>6</b>	<b>49</b>	<b>214</b>

**MONTH - JANUARY 2007**

Species	Area						TOTAL
	2A	2B	2C	3	4	5	
Mallard		4					4
Tufted Duck							
Kestrel	1						1
Sparrowhawk	1						1
Peregrine Falcon							
Grey Partridge							
Moorhen	2	4					6
Coot							
Oystercatcher							
Shelduck	4						4
Lapwing	8						8
Stock Dove							
Barn Owl							
Tawny Owl		1					1
Skylark	8					2	10
Meadow Pipit	11						11
Pied Wagtail	5						5
Grey Wagtail							
Wren	8	2				1	11
Dunnock	21	3	1	3			28
Robin	11	2	1	2			16
Blackbird	41	6		5	4	15	71
Song Thrush	6					3	9
Mistle Thrush	2	1					3
Redwing	4					23	27
Fieldfare	12				8	12	32
Coal Tit	2			1			3
Blue Tit	24		1		3		28
Great Tit	28				5	6	39
Long-tailed Tit	6						6
Goldcrest	2						2
Jackdaw							
Starling	200						200
House Sparrow	15					8	23
Chaffinch	39	3	1			8	51
Brambling							
Greenfinch		4			3	3	10
Goldfinch	12				8		20
Linnet	9					8	17
Bullfinch							
Twite							
Yellowhammer	3					1	4
Reed Bunting	3					2	5
<b>TOTALS</b>	<b>488</b>	<b>30</b>	<b>4</b>	<b>11</b>	<b>31</b>	<b>92</b>	

**MONTH - DECEMBER 2006**

Species	Area					TOTAL	
	2A	2B	2C	3	4		5
Mallard	4						4
Tufted Duck							
Kestrel	1						1
Sparrowhawk	1						1
Peregrine Falcon	1						1
Grey Partridge	4						4
Moorhen	2						2
Coot							
Oystercatcher	2						2
Shelduck	2						2
Lapwing							
Stock Dove							
Barn Owl							
Tawny Owl		1					1
Skylark	1					2	3
Meadow Pipit	1					4	5
Pied Wagtail	8	1					9
Grey Wagtail							
Wren	2	1	1			4	8
Dunnock	16	2		1	1	9	29
Robin	8		1			12	21
Blackbird	27	4			3	43	77
Song Thrush	9					6	15
Mistle Thrush	3	1					4
Redwing	24					6	30
Fieldfare	48					2	50
Coal Tit	2						2
Blue Tit	19	1				4	24
Great Tit	28			4			32
Long-tailed Tit	6						6
Goldcrest	2						2
Jackdaw	9						9
Starling	233						233
House Sparrow	45					10	55
Chaffinch	9			2		5	16
Brambling	2						2
Greenfinch						6	6
Goldfinch	12						12
Linnet	4						4
Bullfinch				1			1
Twite	8						8
Yellowhammer	9						9
Reed Bunting	17						17
<b>TOTALS</b>	<b>569</b>	<b>11</b>	<b>2</b>	<b>8</b>	<b>4</b>	<b>113</b>	

**MONTH - NOVEMBER 2006**

Species	Area						TOTAL
	2A	2B	2C	3	4	5	
Cormorant							
Mallard		4					4
Tufted Duck							
Kestrel		1					1
Sparrowhawk							
Peregrine Falcon							
Grey Partridge							
Moorhen		2					2
Coot							
Oystercatcher							
Shelduck							
Ruddy Duck							
Lapwing						9	9
Curlew	2						2
Stock Dove						2	2
Barn Owl	1						1
Tawny Owl							
Skylark							
Meadow Pipit	1					8	9
Pied Wagtail	1					6	7
Grey Wagtail							
Wren	3	1				2	6
Dunnock	12	1			1	8	22
Robin	10	1	1	2		5	19
Blackbird	13	4		2		6	25
Song Thrush	1	1				1	3
Mistle Thrush	1						1
Redwing							
Fieldfare						2	2
Coal Tit							
Blue Tit	3			2	3		8
Great Tit	9			2	2		13
Long-tailed Tit	5						5
Goldcrest	1						1
Jackdaw	3						3
Starling	12					6	18
House Sparrow	22					23	45
Chaffinch	28						28
Brambling	6						6
Greenfinch							
Goldfinch						10	10
Linnet	27					8	35
Bullfinch							
Twite	8						8
Yellowhammer	8					3	11
Reed Bunting	6					4	10
<b>TOTALS</b>	<b>183</b>	<b>15</b>	<b>1</b>	<b>11</b>	<b>6</b>	<b>103</b>	



**MONTH - OCTOBER 2006**

Species	Area						TOTAL
	2A	2B	2C	3	4	5	
Mallard	4	2					6
Tufted Duck							
Kestrel	1					1	2
Sparrowhawk						1	1
Peregrine Falcon							
Grey Partridge	7						7
Moorhen		1					1
Coot		1					1
Oystercatcher							
Shelduck	4						4
Lapwing	47					11	58
Stock Dove	2						2
Barn Owl	1						
Tawny Owl							
Skylark	3					2	5
Meadow Pipit	6					6	12
Pied Wagtail	6					4	10
Grey Wagtail	1						1
Wren	1			1		2	4
Duncock	8	2		1	2	3	16
Robin	11		1			3	15
Blackbird	17	9		2	5	7	40
Song Thrush	1					1	2
Mistle Thrush	1	1					2
Redwing	19						19
Fieldfare							
Coal Tit	1						1
Blue Tit	12	3				5	20
Great Tit	19	6	1			5	
Long-tailed Tit							
Goldcrest							
Jackdaw	3	6				1	10
Starling	23					8	31
House Sparrow	6					5	11
Chaffinch	9	4	2		1		16
Brambling	6						6
Greenfinch	15					32	47
Goldfinch	20						20
Linnet	6					18	24
Bullfinch				1			1
Twite							
Yellowhammer	8						8
Reed Bunting	8					2	10
<b>TOTALS</b>	<b>276</b>	<b>35</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>117</b>	

**MONTH - SEPTEMBER 2006**

Species	Area						TOTAL
	2A	2B	2C	3	4	5	
Mallard	18	4					22
Tufted Duck							
Kestrel	1	1					2
Sparrowhawk	1						1
Peregrine Falcon							
Grey Partridge							
Moorhen	2	3					5
Coot		1					1
Oystercatcher	2						2
Shelduck	2						2
Lapwing							
Stock Dove	2	1					3
Barn Owl	1						1
Tawny Owl							
Skylark						3	3
Meadow Pipit						5	5
Pied Wagtail	6					3	9
Grey Wagtail							
Wren	10	1	1			1	13
Dunnock	18	1		1		9	29
Robin	27	1			1	3	32
Blackbird	33	1	1	1	2	9	47
Song Thrush	2					1	3
Mistle Thrush	2						2
Redwing							
Fieldfare							
Coal Tit	2			1			3
Blue Tit	29	1			2	5	37
Great Tit	42					5	47
Long-tailed Tit	8						8
Goldcrest	1						1
Jackdaw	6						6
Starling	60					11	71
House Sparrow	44					8	52
Chaffinch	27					14	41
Brambling							
Greenfinch	8				2		10
Goldfinch	24		4		4		32
Linnet	18						18
Bullfinch							
Twite							
Yellowhammer	8			1			9
Reed Bunting	6						6
<b>TOTALS</b>	<b>410</b>	<b>15</b>	<b>6</b>	<b>4</b>	<b>11</b>	<b>77</b>	